



Risk Management



Safety

Mission Statement

ENHANCE WARFIGHTING

CAPABILITY

&

PROTECT THE FORCE !

**via systematic & progressive
process to**

ID HAZARDS & MANAGE RISKS



Battle and Non-Battle Casualties

Rate* per 1,000 soldiers and percent

Army	W.W.II 1942-45	Korea 1950-53	Vietnam 1965-72	DS/S 1990-91	NTC FY93 (BLUFOR-GROUND)
Accident	95.57 56%	120.33 44%	154.66 54%	11.14 75%	2.23 3%
Friendly Fire	1.50*** 1%	3.03*** 1%	2.67*** 1%	.68 5%	7.87**** 9%
Enemy Action	73.61 43%	148.56 55%	131.20 45%	2.90 20%	74.17**** 88%

* Per 12 months for W.W.II, Korea and Vietnam; 14 months for DS/S; per rotation NTC.

** Deaths and injuries (ground and aviation) for entire war/operation.

*** Research based estimate (2% of all direct- and indirect- fire losses).

**** Simulated (MILES) direct fire vehicle kills.



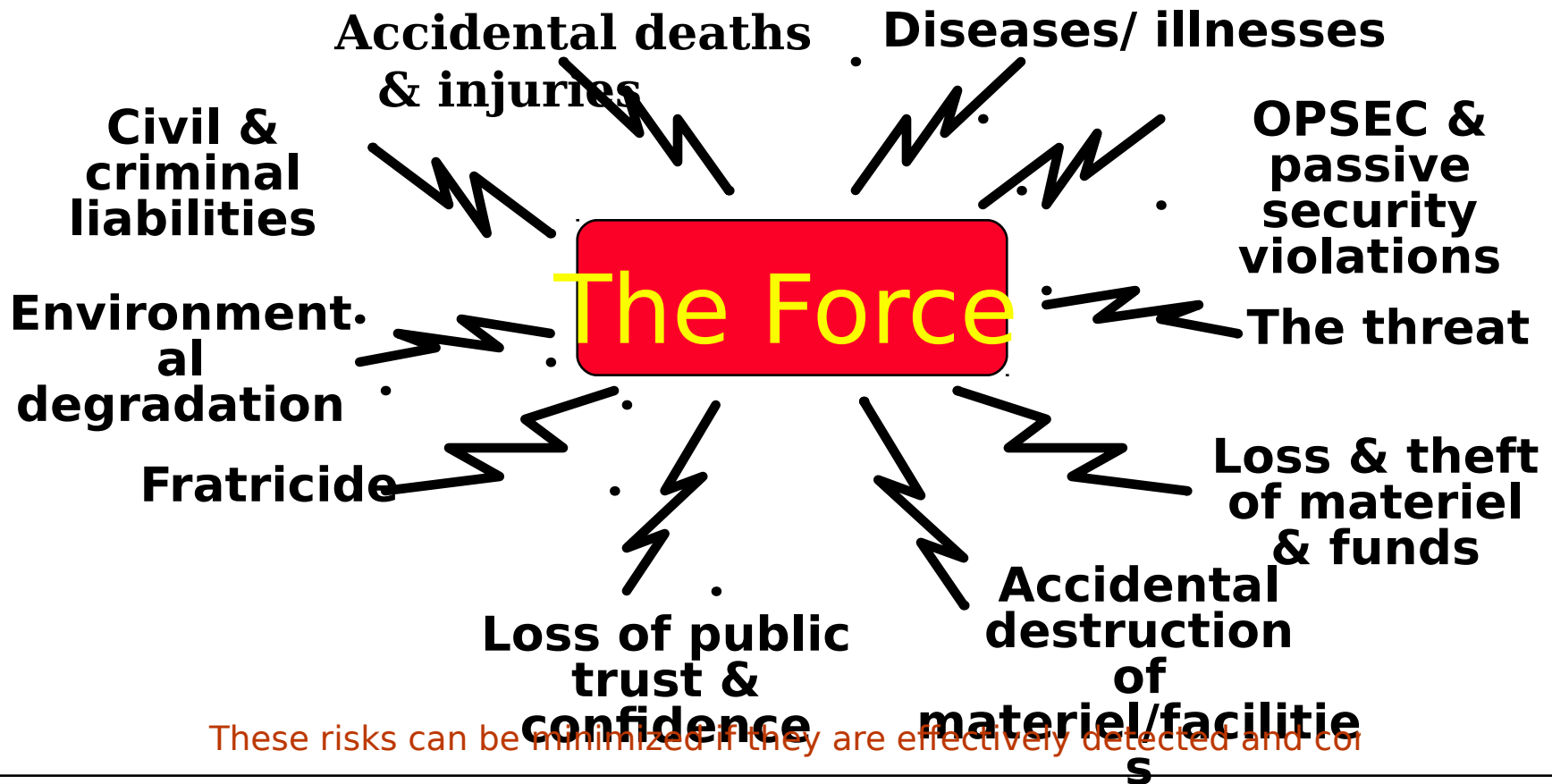
Successful War Fighting!



FM 100-5, Operations



Risks Threaten the Force and Its Capabilities

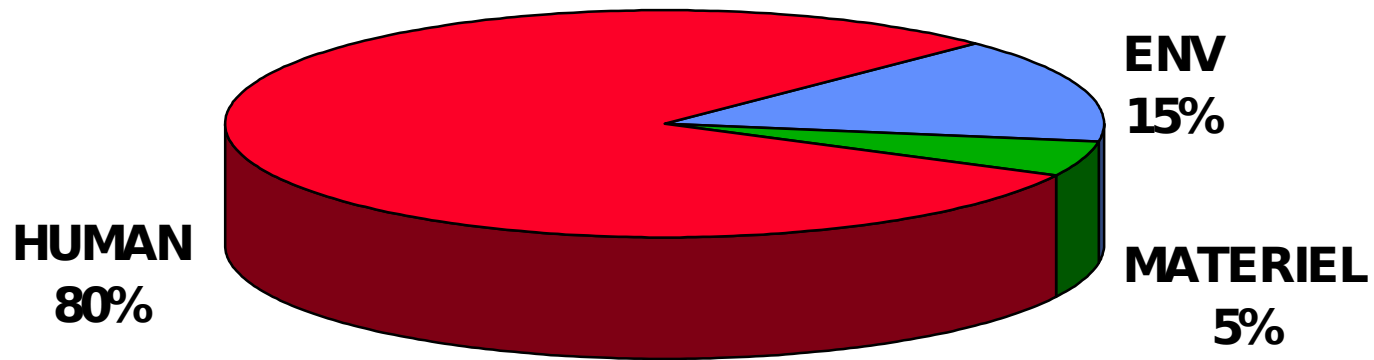


Today's Environment [Cultural Dilemma]





Accident Causes Army-Wide





HUMAN ERROR

- ☹ **8% SUPPORT**
- ☹ **8% STANDARDS**
- ☹ **18% TRAINING**
- ☹ **18% LEADER**
- ☹ **48% INDIVIDUAL**



Army Motor Vehicle Accidents

- **INADEQUATE TRAINING**
- **EXCESSIVE SPEED**
- **VIOLATED PROCEDURES**
 - **Ground Guiding**
 - **Restraints**
 - **Starting/Stopping**
 - **Emergency**



Combat Soldiering Accidents

- **BIVOUAC ACTIVITIES**
 - **Motor Parks**
 - **Sleeping**
 - **Tents/Stoves**
- **FALLS**
- **IN A HURRY**
- **HEAT/COLD**



HELPS !

- ☺ **SAFETY OFFICER/NCO**
- ☺ **5-STEP RISK MANAGEMENT TRAINING**
- ☺ **NEWCOMER ORIENTATIONS**
- ☺ **SAFETY DAY (QUARTERLY)**
- ☺ **PUBS ACCOUNT**
- ☺ **POV & MOTORCYCLE DDC**
- ☺ **QUALITY TRAINING**



QUALITY TRAINING!

- **RISK MANAGEMENT**
- **PROTECTIVE EQUIPMENT**
 - *Eyes, Ears, Hands, Feet, Head, Respiratory System*
- **HAZARD COMMUNICATION (HAZCOM)**
 - *CARC Paint, Chemicals*
- **Army Motor Vehicle (AMV)**
- **EQUIPMENT**
 - *Stoves, Extinguishers, POL, Rail Loading, Convoys, Ground Guiding, Tire Changing, Radiation Sources*



RISK MANAGEMENT ENT

*A
REVIEW*



“Our goal is to make risk management a routine part of planning and executing operational missions.”

--GEN Dennis Reimer,
CSA



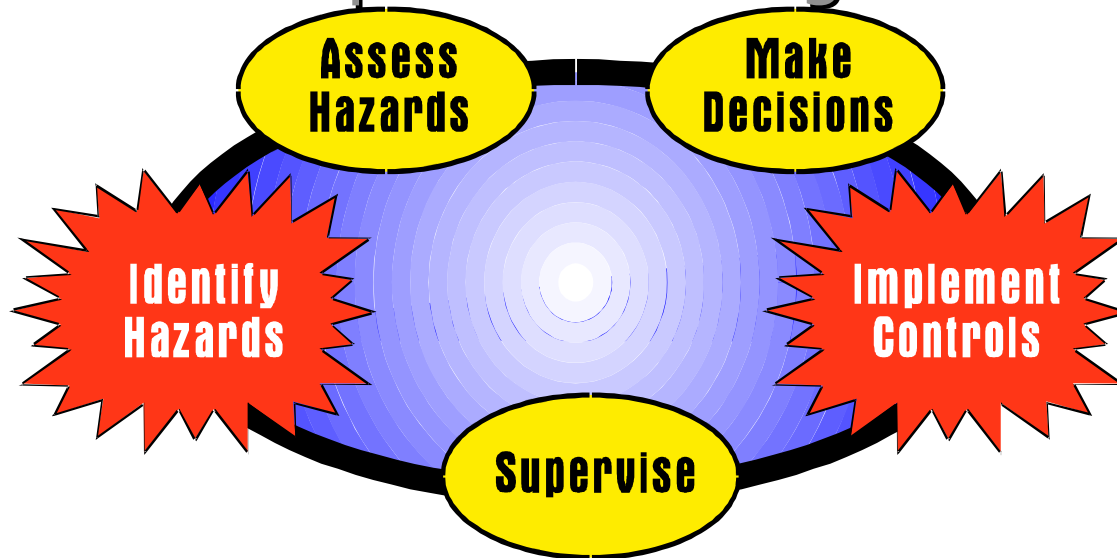
GAMBLING Versus RISK

MANAGEMENT

- The key difference between the gambler and the bold risk taker is that the risk managing leader can **reasonably predict the outcome.**
- The gambler is only guessing.



The Five Step Risk Management Process



The Army's doctrinal process for identifying and controlling hazards.

Identifies hazards that create unnecessary risks, and the controls which allow the commander to accomplish the mission.

Risk is inherent in all Army operations. Eliminating or controlling unnecessary risks opens the way for **audacity in execution** and preserves combat power.



Risk Management Terms

- **HAZARD**--Any real or potential condition that can cause injury, illness or death of people, or damage/loss of equipment or property
- **RISK**--Chance of hazard or bad consequences; exposure to chance of injury or loss. Level expressed in terms of hazard probability & severity
- **EXPOSURE**--How often, how long



Risk Management Terms

- **CONTROLS**--Actions taken to eliminate hazards or reduce their risk
- **RISK ASSESSMENT**--The first two steps of RM process
- **RESIDUAL RISK**--Level remaining after controls in place
- **RISK DECISION**--To accept or not the risks (by one responsible for doing that action)



FUNDAMENTAL PRECEPTS OF RISK MANAGEMENT

- The greater the risk the more senior the final decision maker should be.
- When in the high risk zones, everyone from the commander to the individual must be aware of the risk implication.
- **All** risk variations that can be controlled, **MUST** be controlled.
- By-the-book, disciplined operations are mandatory.



THE PROCESS



- Identify Hazards-- identify the major events in the operational sequence and the hazards associated with all specified and implied tasks.

- Assess Hazards
- Develop Controls/Make Decisions
- Implement Controls
- Supervise & Evaluate



QUICK DECISION MAKING USING METT-T

- Identify Hazards
- Assess Hazards
- Develop Controls and Make Risk Decisions
- Implement Controls
- Supervise

- Hazard factors-
 - (METT-T)
 - ✓ Mission
 - ✓ Enemy
 - ✓ Terrain
 - ✓ Training of personnel
 - ✓ Time of day
 - ✓ Equipment
 - ✓ Weather
 - Other specific



Hazard Detection Resources / Tools

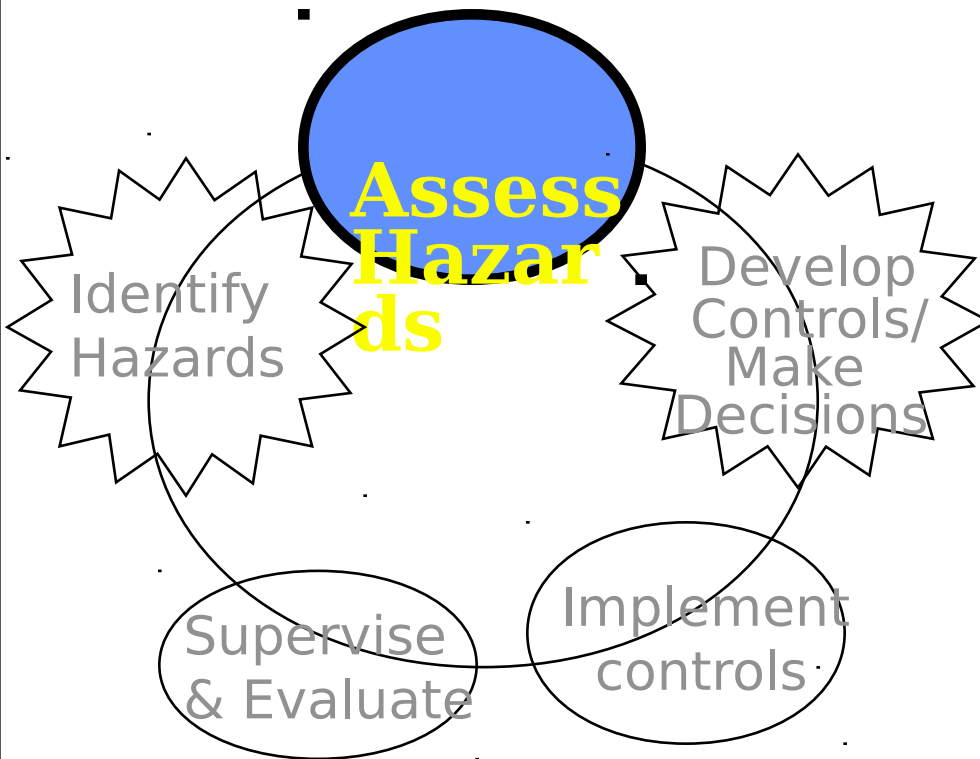
- **Experience**
- **Experts**
- **Regs and manuals**
- **Accident data**
- **Hazard scenarios**
- **Risk assessment matrix**
- **Readiness assessments**
- **Safety quizzes**
- **Cause and effect diagram**
- **Change analysis**
- **Logic diagrams**
- **Mapping techniques**
- **What-if analysis**
- **Training realism assessment**
- **Opportunity assessment**

Risk Management Worksheet

Controls	Initial Risk	Controls	Residual Risk	How to Implement	How to Supervise
Hazards	Level		Level		
Effective?					
Highway					
Equip Ld					
90					
Degs+					
Hills/Wal					
k					
20%					
New					
Troops	Risk level after controls are implemented			Risk Decision Authority	
Low	Moderate	High	Extremely High		
0500 Hrs					



THE PROCESS



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- **Assess Hazards**
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Risk Assessment Matrix

			PROBABILITY					
			Frequent	Likely	Occasional	Seldom	Unlikely	
			A	B	C	D	E	
SEVERITY	Catastrophic	I	Extremely High					
	Critical	II	High	High				
	Marginal	III		Moderate		Low		
	Negligible	IV						



RISK LEVELS

Extremely High	High	Medium	Low
High	Medium	Low	
Medium	Low		
Low			

Extremely High Loss of ability to accomplish mission

High Significantly degrades mission capability

Medium Degrades mission capabilities

Low Little or no impact on mission accomplishment

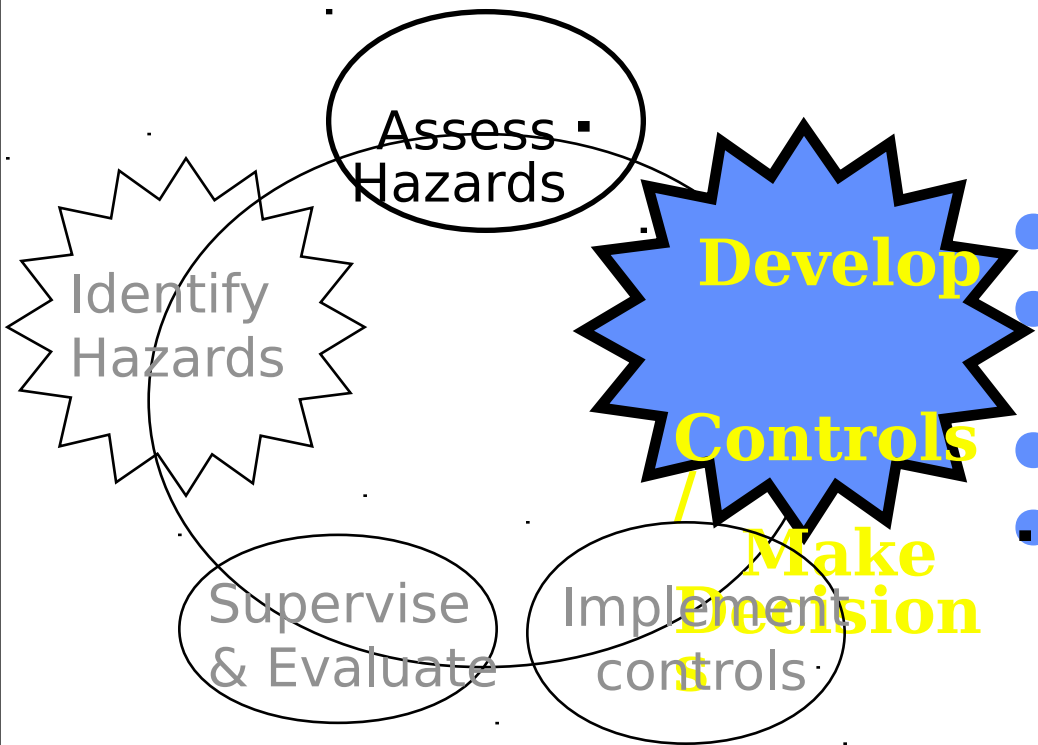
Risk Management Worksheet

Controls	Initial Risk	Residual Risk	How to	How to
Hazards	Level	Level	Implement	Supervise
Major	EH			
Highway				
Equip Ld	H			
90	EH			
Degs+	H			
Hills/Wal	EH			
k				
20%	H			
New				
Troops	Risk level after controls are implemented			Risk Decision Authority
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0500 Hrs



THE PROCESS



- Identify Hazards-- identify the major events in the operational sequence and the hazards associated with all specified and implied tasks.
- Assess Hazards
- **Develop Controls/Make Decisions**
- Implement Controls
- Supervise & Evaluate



Some Control Ideas

Control Option	Individual	Supervisor
Commander		
✗ Engineer		
✗ Guard		
✗ Limit exposure		
✗ Personnel selection		
✗ Train & educate		
✗ Warn		
✗ Motivate		
✗ Reduce effects		
✗ Rehabilitate		

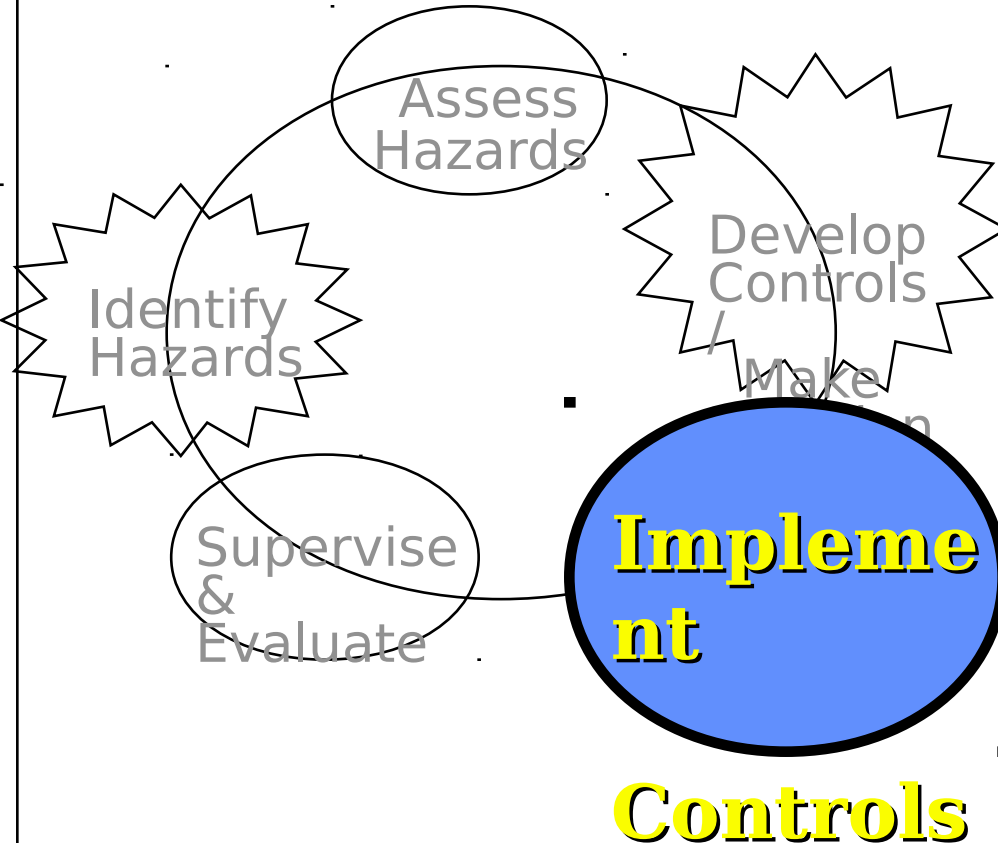
Risk Management Worksheet

Controls	Initial Risk		Residual Risk	How to	How to
Hazards	Level	Controls	Level	Implement	Supervise
Effective?	H	Rd Guard/			
Highway		Tactical			
Equip Ld	H	Distr Ld			
90	EH	Hydration			
Degs+	H	Good Route			
Hills/Wal	EH	Train to			
k		Standard			
20%	H	Cat Eyes			
New					
Troops	Risk level after controls are implemented			Risk Decision Authority	
Low	Moderate	High	Extremely	High	

0500 Hrs



THE PROCESS



- Identify Hazards
- Assess Hazards
- Develop Controls/
Make Decisions
- Implement Controls--
Integrate controls into:
 - × **Plans**
 - × **OPORDs**
 - × **SOPs**
 - × **Training performance standards**
 - × **Rehearsals**
- Supervise & Evaluate

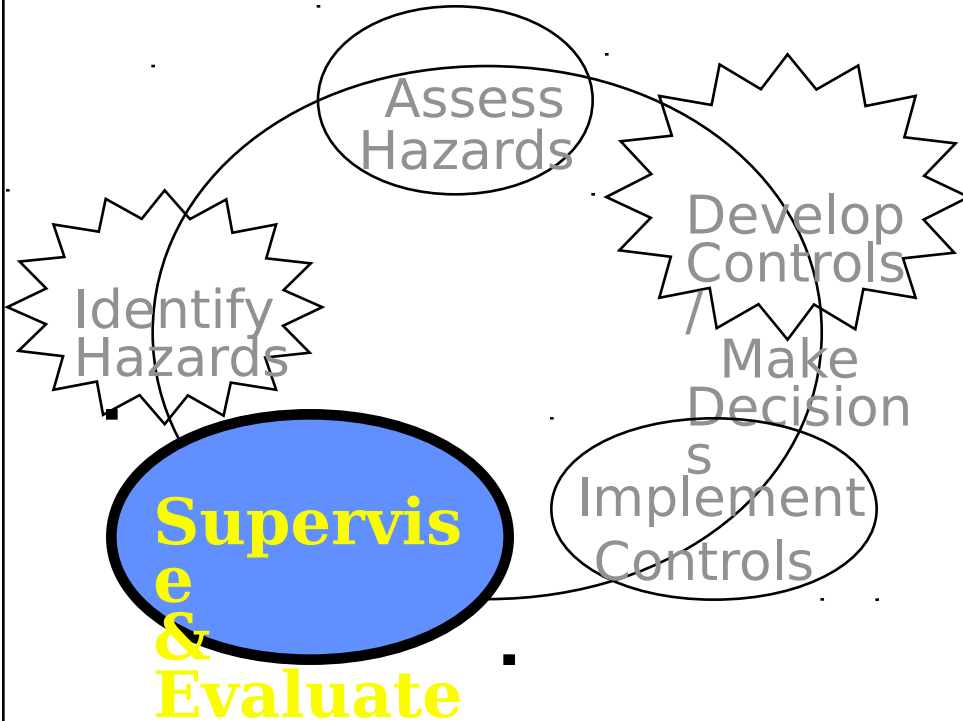
Risk Management Worksheet

Controls	Initial Risk	Controls	Residual Risk	How to Implement	How to Supervise
	Level				
Major	H	Rd Guard/	H	SOP	
Effective?					
Highway		Tactical			
Equip Ld	H	Distr Ld	H	VERBALLY	
90	EH	Hydration	H	FMs/TB	
Degs+	H	Good Route	H	TACSOP	
Hills/Wal	EH	Train to	H	TACSOP	
k		Standard			
20%	H	Cat Eyes	H	FM 21-18	
New					
Troops	Risk level after controls are implemented			Risk Decision Authority	
Low	Moderate	High	Extremely	High	
0500 Hrs					



THE PROCESS

- Identify Hazards
- Assess Hazards
- Develop Controls/
Make Decisions
- Implement Controls
- **Supervise & Evaluate**



Risk Management Worksheet

Initial Risk		Residual Risk		How to	How to
Controls	Level	Controls	Level	Implement	Supervise
Major Effective	EH	Rd Guard/Tactical	H	SOP	Cont Supv
Highway					
Equip Ld	H	Distr Ld	H	VERBALLY	Y
90 Degs+	EH	Hydration	H	FMs/TB	Cont Supv
Hills/Walk	H	Good Route	H	TACSOP	Spot Chk
20% New	EH	Train to Standard	H	TACSOP	Cont Supv
Troops	H	Cat Eyes	H	FM 21-18	Cont Supv
Risk level after controls are implemented			Risk Decision Authority		
Low	Moderate	High	Extremely High		

0500 Hrs

Buddy



Applications

Governed by available time (METT-T)

Quick decision-making RM <u>Little time available</u>	Deliberate RM Time available & significant risk	In-depth RM High risk demanding action
<p>Mentally applying the basic five step process in the context of the appropriate troop leading/decision-making process.</p>	<p>Designed to detect & control the risks of a specific mission usually including the following:</p> <ul style="list-style-type: none"> - A mission analysis - A preliminary hazard list - COA analysis - Back briefs and rehearsals - Integrate controls in OPORDS, FRAGOS, SOPs, graphics, etc. <p>Typical applications:</p> <ul style="list-style-type: none"> - Deliberate attacks 	<p>Detailed techniques incorporating deliberate RM procedures but going well beyond to assure maximum risk control. Typically limited to higher risk operations and requiring professional expertise.</p> <p>Typical Application:</p> <ul style="list-style-type: none"> - New doctrinal concepts - New missions/METI



Risk Management Tools

The Next Accident Assessment

Provides self and leader-based assessment of potential for accident involvement

Safety Knowledge Quiz

Assesses the status of critical force protection skills and knowledge

Unit Accident Patterns

Focusing on past accident patterns in units of this kind. Learning from the mistakes of others

CTC Performance

Focusing on successful force protection performance at the various training centers

Integration in Battle Focused Training Processes

Build risk management into the METL assessments and training plans IAW FM-25-101

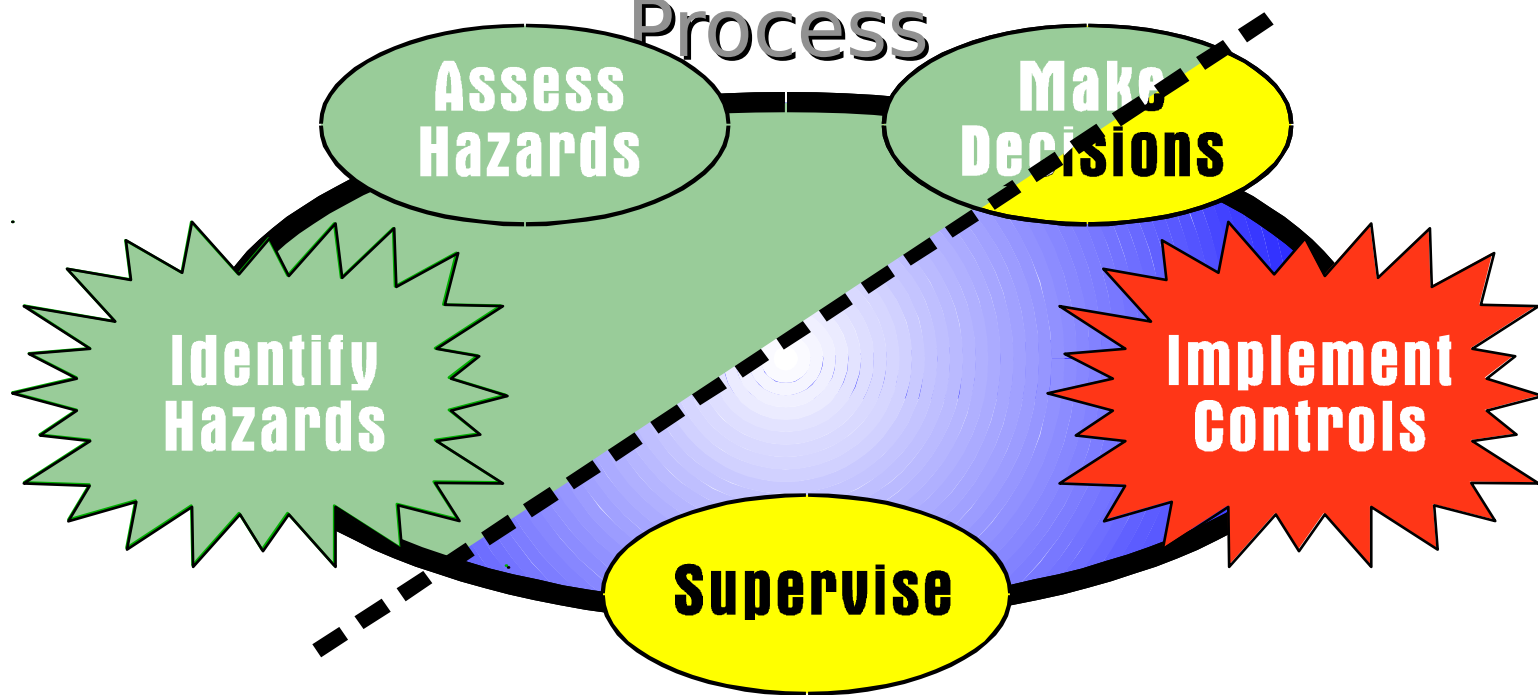


DON'T FORGET!

- * Risk management is a process, **not** a form, a matrix, or a single action!
- * Hazard/risk assessment **never** stops!
- * Mission success depends on prudent risk taking, **not** gambling!
- * The higher the risk, the **more senior** the decision maker!



Avoid the Breakdown in the Risk Management Process





We SHOULD ALL BEAR ONE THING
IN MIND WHEN WE TALK ABOUT
A TROOP WHO 'RODE ONE IN.'

HE CALLED UPON THE SUM OF ALL
HIS KNOWLEDGE AND MADE A
JUDGMENT. HE BELIEVED IN IT SO
STRONGLY THAT HE KNOWINGLY
BET HIS LIFE ON IT.

THAT HE WAS MISTAKEN IN
HIS JUDGMENT IS A TRAGEDY,
NOT STUPIDITY.

EVERY SUPERVISOR AND
CONTEMPORARY WHO EVER SPOKE
TO HIM HAD AN OPPORTUNITY TO
INFLUENCE HIS JUDGMENT, SO A
LITTLE BIT OF ALL OF US GOES IN
WITH EVERY TROOP WE LOSE.

AUTHOR UNKNOWN

